

Cog (white) loose	2 to 3	1,500 to 3,200
Clay of pine and coal	15 to 30	
Earth (common loam):		
Dry, loose	72 to 80	
Moist, moderately packed	90 to 100	
Soft mud, packed	110 to 120	
Masonry:		
Brickwork	100 to 140	
Roughly scabbled mortar rubble	140 to 150	
Mortar, hardened	103	

Cog (white) loose	1,500 to 3,200	Pounds per 1,000 board feet.
Clay of pine and coal		
Earth (common loam):		
Dry, loose	72 to 80	2,170
Moist, moderately packed	90 to 100	2,330 to 2,580
Soft mud, packed	110 to 120	3,250 to 3,920
Masonry:		
Brickwork	100 to 140	3,080 to 4,670
Roughly scabbled mortar rubble	140 to 150	1,830 to 2,580
Mortar, hardened	103	1,920 to 3,080

The wood is supposed to be seasoned and of average dryness.

### Common Rules of Measurement.

Rectangle ..... Area = length  $\times$  width.

Solid with rectangular sides ..... Volume = length  $\times$  width  $\times$  height.

Circle .....  $\left\{ \begin{array}{l} \text{Circumference} = 3.1416 \times \text{diameter.} \\ \text{Area} = 0.7854 \times \text{diameter} \times \text{diameter.} \end{array} \right.$

Cylinder .....  $\left\{ \begin{array}{l} \text{Area (exclusive of that of ends)} = 3.1416 \times \text{diameter} \times \text{height.} \\ \text{Volume} = 0.7854 \times \text{diameter} \times \text{diameter} \times \text{height.} \end{array} \right.$

(OVER)



DEPARTMENT OF COMMERCE  
BUREAU OF STANDARDS  
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## HOUSEHOLD WEIGHTS AND MEASURES

The object of this card is to present in convenient form the weights and measures tables most useful for household<sup>1</sup> purposes. In addition to the capacity measures illustrated, every kitchen should be provided with a good household weights and measures test set. This will be found indispensable in checking the amounts of commodities purchased and very useful for a variety of other purposes. A complete set comprises a weighing scale of from 10 to 30 pounds capacity or more graduated to 1 ounce or less, a set of liquid measures, a yard measure or a tape 3 or 6 feet in length, and, perhaps, a set of dry measures. These pieces should be of simple but rugged construction and of satisfactory accuracy and should, whenever possible, be tested by and bear the seal of a weights and measures official.

### Common Kitchen Measures.

#### EQUIVALENTS OF CAPACITY. (All measures level full.)

3 teaspoons	= } 1 tablespoon.
$\frac{1}{2}$ fluid ounce	= }
16 tablespoons	= }
2 gills	= }
$\frac{1}{2}$ liquid pint	= }
8 fluid ounces	= }
1 liquid pint	= } 2 cups.
16 fluid ounces	= }



### Liquid Measure.

4 fluid ounces	= 1 gill.
4 gills	= 1 pint.
2 pints	= 1 quart.
4 quarts	= 1 gallon (231 cubic inches).
$3\frac{1}{2}$ gallons	= 1 barrel.
2 barrels	= 1 hogshead.

### Dry Measure.

(For fruits, vegetables, and other dry commodities.)

2 pints	= 1 quart.
8 quarts	= 1 peck.
4 pecks	= 1 bushel (2150.42 cubic inches).
105 quarts	= 1 barrel (7056 cubic inches).

The pint and quart dry measures are about 16 per cent larger than the pint and quart liquid measures.

### Avoirdupois Weight.

$27\frac{1}{2}$ grains	= 1 dram.	25 pounds	= 1 short quarter.
16 drams	= 1 ounce.	28 pounds	= 1 long quarter.
16 ounces	= 1 pound.		
4 quarters	= 1 hundredweight.	{ Short hundredweight = 100 pounds. Long hundredweight = 112 pounds.	
20 hundredweight	= 1 ton.	{ Short ton = 2,000 pounds. Long ton = 2,240 pounds.	

### Approximate Weights of Some Common Dry Commodities.

	Pounds per bushel.	Pounds per bushel.		
Apples	48	Peaches	48	Ice:
Beans	60	Peanuts	22	1 cubic foot = 57.2 pounds.
Beets	60	Pears	58	30 cubic inches = 1 pound.
Carrots	50	Peas (dried)	60	Sugar, granulated:
Cranberries	32	Peas (green, unshelled)	56	1 cup = $\frac{1}{2}$ pound.
Cucumbers	48	Potatoes (white)	60	Butter: 1 cup = $\frac{1}{2}$ pound.
Onions	57	Potatoes (sweet)	54	Lard: 1 cup = $\frac{1}{2}$ pound.
Parsnips	50	Tomatoes	56	Flour: 1 cup = $\frac{1}{2}$ pound.
		Turnips	55	Rice: 1 cup = $\frac{1}{2}$ pound.
				Cornmeal: 1 cup = 5 ounces.
				Raisins (stemmed):
				1 cup = 6 ounces.
				Currants (cleaned):
				1 cup = 6 ounces.
				Bread crumbs (stale):
				1 cup = 2 ounces.
				Chopped meat (packed): 1 cup = $\frac{1}{2}$ pound.

These weights are approximate only and should therefore not be used in determining whether correct measure is given or received.

<sup>1</sup> Circular of the Bureau of Standards No. 55, entitled "Measurements for the Household," contains in popular form a large amount of information which is very useful about the home. In addition to discussing weighing and measuring as done in the up-to-date kitchen, this circular treats of the measurement and economical use of heat, light, gas, electricity, water, time, etc. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 15 cents each.